

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (canceled)
2. (canceled)
3. (canceled)
4. (canceled)
5. (canceled)
6. (canceled)
7. (canceled)
8. (canceled)
9. An airbag system comprising:
  - an airbag housing;
  - an airbag mounted to the airbag housing, and having an occupant facing portion which, when the airbag is inflated, faces an occupant position;
  - a source of gas mounted to the airbag housing in gas supplying connection to the airbag to cause the airbag to inflate when a flow of gas is initiated;
  - an electromagnetic wave transmitter fixedly mounted with respect to the airbag housing;
  - an electromagnetic wave receiver fixedly mounted with respect to the airbag

housing;

a reflector mounted to the occupant facing portion of the airbag so that when electromagnetic waves are transmitted by the transmitter toward the reflector, the electromagnetic waves are reflected toward the receiver; and

a controller operably connected to the transmitter and receiver to calculate at least one displacement derivative with respect to the reflector.

10. The airbag system of claim 9 wherein the reflector comprises a conductive area of the occupant facing portion of the airbag.

11. The airbag system of claim 9 wherein the reflector is a passive reflector.

12. The airbag system of claim 9 wherein the controller is connected in controlling relation to a vent mounted to the airbag housing and operable, in response to a command from the controller, to allow an escape of gas from the airbag.

13. The airbag system of claim 12 further comprising a means for detecting at least one stage of airbag inflation, and operatively connected to the vent to inhibit opening of the vent when the at least one stage of airbag inflation is detected.

14. The airbag system of claim 13 wherein the means for detecting at least one stage of the airbag inflation is a wire connected to the occupant facing portion of the airbag.

15. (canceled)

16. (canceled)

17. (canceled)

18. (canceled)

19. (canceled)

20. (canceled)